CONSIDERATIONS
ON
BILIOUS DISEASES:
AND
SOME PARTICULAR AFFECTIONS OF THE LIVER, AND THE GALL BLADDER.

THE SECOND EDITION,
ENLARGED AND IMPROVED.

By JOHN ANDREE, M.D.

"AD UTILITATEM VITÆ, OMNIA CONSILIA FACTAQUE
"NOSTRA DIRIGENDA SUNT." Tacitus.

LONDON:

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MDCCLXXXX.

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MDCCLXXXV.

THE PREFACE.

BILIOUS Diſeaſes are among the moſt common of the chronic diſtempers of the inhabitants of England, and therefore merit the peculiar attention of medical practitioners. During twelve years, I had too much reaſon to lament the imperfect ſtate of this part of medical knowledge, having been nearly ſo long ſubject to a bilious diſorder, undeſcribed by any authors, and opprobrious to my own, and learned friends kind medical aid.

Failing

Failing in the requiſite knowledge of theſe kind of diſeaſes, in the common courſe of medical learning, my next recourſe was to anatomical inveſtigation; by embracing every opportunity of examining the parts affected by diſſection of many who had been afflicted with ſuch diſorders.—Having flattered myſelf that ſome of the opinions contained in the following pages will tend to the relief of mankind in ſuch diſeaſes, I felt it a duty incumbent on me to ſubmit them to public inſpection in this, ſtill far from perfect ſtate, ſatisfying myſelf with "*mens ſibi conſcia recti.*"

The Dropſy being not unfrequently preceded by bilious diſeaſe, I truſt the introduction of the following remark will not be judged wholly irrelevant; to wit, that when it has continued for a certain length of time, that is to ſay,

is

is become a chronic diſtemper, "the haſty evacuation of the water," whether by medicine or ſurgical operation, "will precipitate the death of the patient; apparently from inanition."—Alſo that the digitalis, from it's baneful effects,* is to be claſſed among the deleterious medicines, and therefore ſhould not be uſed until the common diuretics have been adminiſtered; among which the dried ſquill claims the pre-eminence.

Hertford,
May, 1790.

* See a paper on this ſubject by Dr. Lettſom, in Memoirs of the Medical Society of London, Vol. II.

ERRATA.

Page 35. last line, for *Cullen's* read *Cullen*.

Page 41. last line but one, for *his* read *this*.

CONSIDERATIONS, &c.

THE general opinion of bilious diseases, occurring in England, has hitherto been, that they arise from an encreased action of the bile.—This, however, appears to me not to be well founded: and I think they may with more propriety be deduced, from, either a redundancy of bile, from a less quantity being secreted than is natural,—from mis-placed bile,—or from the state of the bile itself.

Under these general heads it shall be my endeavour to elucidate this subject. Previous to which it may not be improper to give a brief anatomical description of the liver, the gall bladder and ducts.

The liver is the largest gland in the body; of a dusky red color. It is situated

principally on the right ſide, and upper part of the abdomen, being covered by the lower part of the ribs and their cartilaginous appendages. It covers the upper part of the ſtomach, and ſome of the bowels; it adheres to the diaphragm, a thin expanded muſcle, ſeparating the cavity of the cheſt and the lungs, from the abdomen. It is tied to the breaſt bone by a broad ligament, and to the navel by a round one. It is nouriſhed by the arteriæ hepaticæ: but its blood veſſels, from which the bile is ſecreted, are the branches of the vena portarum, which diſtributes its blood like an artery, in order for the ſecretion of the bile. Its weight in a middle ſized man is about three pounds twelve ounces.

The gall bladder is a ſmall membranous bag, ſeated in the hollow part of the liver; ending in a duct called cyſticus, which is united to another duct coming from the liver, named hepaticus, and from theſe, thus joined, commences the ductus communis choledochus; which enters the firſt gut near the ſtomach.

All the bile ſecreted in the liver paſſes through the hepatic duct in its courſe to the gut, and a part regurgitates into the gall bladder.*

The firſt ſubject is a redundancy of bile.

This has ever been conſidered as one cauſe of diarrhœa's, more common in warm climates than in England, where I think it is frequently productive of a conſtitutional lax habit of body.

Another effect of a redundancy of bile is a vomiting of that fluid, appearing as the effort of the conſtitution to free itſelf of the redundant quantity of bile. Of this I have ſeen ſome, beſides the enſuing inſtances, ter-

* I opened the abdomen of a healthy dog, tied up the biliary ducts, then ſewed up the wound in the belly, and the animal recovered. Ten days afterwards the dog was killed, and I found the gall bladder perfectly flaccid and empty.—This experiment ſhews, that all the bile found in the gall bladder gets into that veſſel by regurgitation, through the biliary ducts; and that there are no canals leading immediately from the liver to it, as ſuppoſed by ſome learned authors.

minating in or followed by other diſtempers.

This diſcharge of bile becomes in ſome inſtances habitual; I have alſo remarked it to become periodical; and moſt uſually to happen either on a full, or on an empty ſtomach; for example, at firſt riſing out of bed, or after eating a full meal; inſtances of each of which I have known. This ſymptom may continue many months, perhaps years, without materially injuring the conſtitution.

J. H. Eſq; aged twenty-five years, of a healthy and ſtrong conſtitution, in 1773, began daily to vomit ſoon after dinner much of what he had eat, and ſome clear bile. This continued for three years, without any evident injury to his health, and then diſappeared. His father is gouty, and himſelf has had ſeveral attacks of diſorders attended with plethora. This ſymptom appeared in this caſe as the effort of the conſtitution, to throw off a ſurplus of bile.

W. A.

W. A. S. Esq. aged forty, has passed at different times six years in India, where he had repeated attacks of bilious disease. He enjoys, when living very cautiously in both eating and drinking, good health. Fat, and butter, taken freely, or a hearty meal of rich high sauced victuals, always produce a bilious vomiting. The remedy this gentleman uses is an aloetic purge, whenever his bowels are not in a rather lax state. For costiveness in him, brings on oppression at the stomach, head-ach, and some appearance of jaundice, especially about the eyes.

L. W. an unmarried lady aged twenty, was seized in 1785, with vomiting of bile in the morning, at first rising in the bed, which returned daily for five months. She then had frequent attacks of the same in the afternoon. This having continued near a twelvemonth ceased, costiveness ensued, and a dropsy put a fatal period to the disease.—In this case it is highly probable these ill consequences might have been prevented, had a proper course of medi-

cines been adopted when the bilious diſcharge ceaſed, which ſhould have been joined with or followed by tonics.

Another effect ariſing from this cauſe is a reaſſumption of bile into the circulation, demonſtrated by its producing ſymptoms of jaundice recurring frequently on the commitment of any material error in diet. This is ſhewn by its producing yellowneſs of the eyes, and ſkin, particularly about the temples; from a continuance of ſuch cauſe, a confirmed jaundice may alſo enſue.

Mr. N. Silverſmith in the Strand, aged about thirty-five, in Auguſt 1786, conſulted me, he had then been four months afflicted with a confirmed jaundice; for which, according to his own expreſſion, he had taken his hat full of medicines without receiving any benefit. His health was otherwiſe good; he was rather coſtive, but had very little uneaſineſs, nor had he ever felt any acute pains or ſpaſms in the right ſide or near the liver, ſo as to give any rea-

ſon for ſuppoſing there were biliary calculi.

After maturely conſidering this caſe, it occurred to me that the diſorder might be cauſed by an exceſs of bile. I therefore preſcribed for him, pills of aloe, ſapo, rhabarb. & gum. ammoniac. in order to keep the bowels gently lax. And thrice in the day to take a large tea ſpoonful of elix. vitr. acid. and tinctur. ſtomach. each equal parts. Alſo to leave off butter and fat, and to eat plentifully of china oranges, and other mild acid fruit.

He found benefit from the medicines in a few days: and his jaundice was completely gone in a fortnight.

He then left off the medicines, and his diſorder returned in September, when it was again cured by the ſame means. The beginning of December he had another relapſe, and was then cured by the acid drops alone, and vegetable acids.

A redundancy of bile ſeems alſo to be capable of inducing muſcular debility.—And I am ſtrongly perſuaded that ſome obſtinate eruptions on the ſkin ariſe from this cauſe; ſome inſtances of which I have ſeen.—An exceſs of bile (when become acrid or putrid) and abſorbed into the blood, is alſo regarded as the exciting cauſe of bilious fevers, not uncommon in England in ſpring, autumn, and hot and dry ſummers, and one of the moſt common diſeaſes of Europeans in the Eaſt and Weſt Indies.

Engliſh practitioners in the Weſt Indies talk of an acid and an alcaline bile, alledging that in the former, acids encreaſe the diſorders, in the latter are ſerviceable. Bile, on experiments, has been found never to become acid, nor does it become putrid in leſs time than the other animal ſecretions. The acid ejected by vomit in ſuch caſes, muſt therefore have been ſecreted in the ſtomach, or formed by the aliment previouſly contained therein, or in its vicinity.*

* Vide Boerhaave's Academical Lectures.

That

That acids diſagree with ſome diſorders of the bilious kind is certain; but when it is conſidered that the ſtomach does in ſome caſes actually ſecrete a ſuperabundant acid, it will tend ſtrongly towards the overthrowing of this theory.—The practice, however, is judicious, being to procure an immediate and effectual diſcharge of the offending fluids by tartar emetic: and then to throw in the bark boldly, which they alledge is found by experience to be the only ſafe method of cure, and prevention of bilious fevers of the moſt fatal kind. That the bile does ſometimes become of an irritating quality, ſo as to produce diarrhæa and ſome fevers, I think highly probable; though in my opinion leſs frequently ſo than is imagined. By much the greater number, I ſuppoſe, ariſe from the retention of a quantity of indigeſted food, which becoming highly rancid or putrid, is the true cauſe of ſuch fevers. For ſince it is certain that the bile out of the human body is very little prone to become putrid, it will, I think, on a little reflection, be evident, that animal

mal ſubſtances, taken into the ſtomach, are much more likely to become putrid therein, than the bile. In the cure of ſuch fevers the phyſician's attention ſhould ever be fixed on the cauſe of the diſeaſe. The preſent practice of phyſic in theſe diſorders being judicious, it will not be for me to add much on that ſubject.

In addition, however, to the ordinary remedies, I would recommend the liberal uſe of acids duly diluted, that is, for the patients common beverage, on the principle of their partially decompounding the bile, and thereby leſſening the ſymptoms. The human bile is a fluid of an oleaginous viſcidity, of the nature of a liquid animal ſope,* it is conſequently of an alkaline nature, which the acids have a tendency to decompound, and thereby render inactive: the good effects of the above regimen I experienced in my own caſe. The liberal uſe of mild acids is alſo found of the greateſt benefit in ſuch diſeaſes in the Weſt

* Bilis ſapo eſt. Haller, primæ lineæ phyſiol.

Indies,

Indies, where it is even cuſtomary for patients to drink ſherbet, in order to promote the operation of cathartic medicines.

In the Eaſt Indies alſo, mild acids have been found uſeful in bilious diſeaſes. In Dr. G. Fordyce's elements of phyſic are theſe words: a moderate uſe of ſour fruits, in warm ſummers and hot climates, tends alſo to prevent the diarrhæa, dyſentery, or cholera morbus.

But ſhould acids diſagree, which may ariſe from a ſuperabundance of the acid ſecreted in the ſtomach, plentiful dilution with water is to be recommended, from its readily uniting with the bile, which would be thereby rendered leſs active or pungent.

Imperial water, old hock and water, cyder, wine duly diluted, and whey or tea may be allowed. Malt liquor uſually does harm, and ſpirits ſhould be ſtrictly forbidden.

It is alſo to be conſidered that moderation in the quantity of acid taken is neceſſary, for if more is taken in than what is neceſſary for the decompoſition of the bile and other juices, the acidity of the ſuperfluous quantity remains; which might produce the ordinary ſymptoms of acidity in the ſtomach and bowels. Whereas, on the contrary, if the inteſtines are overcharged with animal food, it will tend much to encreaſe the ſymptoms in this kind of bilious habit, either by producing a greater quantity of bile, or of a bad quality, and having a conſiderably ſtronger tendency to become tenacious and putreſcent, than it in a healthy ſtate ſhould be indued with.

In ſupport of this doctrine, let it be obſerved that Europeans, living in hot countries, who eat much of animal food, are by far more ſubject to bilious diſeaſes than the natives, whoſe diet conſiſts principally of vegetables and grain, and whoſe drink is water.

Mode-

Moderation in the quantity then is indicated, and animal food ſhould be allowed only once in every day, and probably one or two days abſtinence in every week from ſuch diet would be of further advantage. The remainder of the food ſhould be attenuant, (nutritive, farinaceous diet, port wine and madeira are alſo ſtrongly recommended,*) eaſy of digeſtion, and moſtly vegetable: whereas ſalted meats, moſt kinds of fiſh, ſweet cakes, butter, eſpecially when melted, and fat of meat, are hurtful.

But another moſt eſſential circumſtance for ſuch ſubjects to attend to, is the due and conſtant preſervation of a moderately lax habit of body. If this can be accompliſhed by diet, it is to be preferred to medicine. But general rules for this cannot be laid down, becauſe every ſuch patient, duely attentive to his own health, may from obſervation be enabled to aſcertain the kind of diet moſt conducive

* Dr. Blane on Diſeaſes of Seamen.

to

to this end. Subſtituting honey (which, where it agrees, is one of the moſt ſalutary ingredients in diet) inſtead of butter, I have known anſwer this purpoſe well; and the drinking ſome warm water gruel at going to bed has tended much to this;* the total abſtinence from butter and fat ſhould alſo be tried.

Exerciſe is another, and a moſt powerful healthy ſtimulus to the liver, bowels, and digeſtive organs.

It however ſhould be adapted to the patient's ſtrength and its effects.—Riding

* A friend of mine told me, that in September, 1787, being in Norfolk on a ſhooting party, he was attacked with a cholera morbus, the vomiting continued at intervals during the firſt day, and then ceaſed. On the enſuing two days he had a bilious flux, having, he thinks, not leſs than thirty dejections on the firſt day, and twenty the ſecond. He lived upon thin oatmeal gruel, which he found to agree better with him than any other diet: and the diſeaſe went off without the aid of medicine.

In Dr. Blane's Obſervations on the Diſeaſes of Seamen, are theſe words on the ſubject yellow fever; "In one caſe which did well, the patient was led by taſte to prefer warm water gruel to every thing elſe, and the great quantity he drank," &c.

on

on horſeback is with juſtice accounted the beſt exerciſe for the bilious; this ſhould alſo be joined with change of air; that of a dry and bracing kind is to be preferred.

Any exerciſe is adviſeable which will neceſſarily induce the patient frequently to bend the body in various directions *. Swinging, (lately recommended for conſumptions) might be tried with ſome proſpect of advantage, on the ſame principle; as an exerciſe well adapted to aſſiſt ſuch caſes in a harmleſs manner. Whereas I have known in myſelf violent jolting of the body, for example on a hard trotting horſe, produce pain, and exaggerate bilious ſymptoms: and if there were rugged biliary calculi in the gall bladder or ducts, might even move them ſo as to irritate and bring on violent ſpaſmodic pains in the parts affected, and even be attended

* Of ſuch medicinal uſe has muſcular exerciſe been conſidered, that Fuller and others have written on medicinal gymnaſtics.

with

with ſome danger of lacerating the ducts.*

It is alſo certain that the mind has a powerful influence upon the biliary parts. I have known attacks of bilious diſeaſe repeatedly brought on by vexation, or anxiety of mind.

Hildanus has remarked that blows of the head, have brought on fatal diſeaſes of the liver. A bilious vomiting is a ſymptom following often, very quickly after accidental injuries of the brain, and ſun ſtrokes in the Eaſt Indies; may not therefore the liver and its ducts, as well as the ſtomach be ſuppoſed to ſympathize with the brain?

The bowels it has been ſaid ſhould be kept open. If this cannot be accompliſhed by diet, ſuch purgatives as will act without ſtimulating, are to be admini-

* The wife of a gentleman of the faculty in London died of a rupture of the gall bladder, from laceration with a gall ſtone, in 1786.

ſtered

ſtered. But no general rule can be laid down for this; various remedies agreeing with different perſons. Caſtor oil is a valuable medicine for this purpoſe. Manna with ſalts warmed with ſome cordial water, is uſed with advantage by ſome, rhubarb poſſeſſing a tonic effect upon the bowels is to be recommended, and the aloetic kind for its certainty of operating is in ſome caſes to be choſen: calomel, ſope and rhubarb given together, are ſaid to bring away more bile than any other purgative. But the beſt laxatives are purging mineral waters, of which the kindlieſt in their operation are thoſe of Cheltenham, being indued with the peculiar property of keeping the body open without debilitating.

Sailing, in obſtinate caſes might alſo be recommended, as productive of a ſickneſs attended with extreme languor, or atony equal to the action of opium or a deliquium from the loſs of blood, without ſo much debilitating the ſyſtem: much

benefit may alſo be derived from the bracing effects of the ſea air.

The laſt indication of cure is to ſtrengthen the tone of the veſſels of the liver. For this purpoſe chalybeates may be recommended; the Peruvian bark has been adviſed, but is found not to act kindly in bilious diſeaſes; the columbo is now preferred, eſpecially in India, where bilious diſeaſes are more common than here. The quaſſia ſhould alſo be tried, being very beneficial in ſome ſtomach diſeaſes.

This bilious habit of body is alſo in ſome inſtances conſtitutional and not productive of diſeaſe, attendant upon what is called the hot conſtitution, that is, vigorous and irritable mind, with a warm ſurface of the body, quick circulation, and tendency to inflammatory diſeaſes.

Another extraordinary bilious diſeaſe, is the enlarged gall bladder. Of this diſorder I have the following caſe to relate, through favor of my friend Mr. Cline, ſurgeon to St. Thomas's Hoſpital.

S. M.

S. M. aged ſixteen, had a troubleſome cough for ſeveral months, attended with pain in the right hypochondriac region. On the ſame ſide a tumor gradually formed, and diſtended the cavity of the abdomen: a fluctuation being diſtinctly felt, a trochar was introduced. By this operation more than twenty ounces of bilious fluid was diſcharged. During the evacuation, he complained of great pain in the part and in his right ſhoulder: ſymptoms of inflammation ſoon followed, and he died on the ſeventh day after the operation.

He had been in an ill ſtate of health about twelve months preceding his death, but without any ſuſpicion of obſtruction to the paſſage of the bile; for his ſkin had not been diſcoloured nor his ſtools apparently altered.

Dr. Cheſton of Gloceſter, examined the body, and found the gall bladder, containing about two quarts of bile, extend-

ing from its uſual ſituation down to the pelvis, and adhering to the peritonœum omentum and part of the ſtomach, all of which were inflamed. The biliary ducts were greatly inflamed, except where the ductus communis cholidochus enters the duodenum, which part was contracted, but admitted the bile, with ſome difficulty, to be preſſed into the inteſtine.

Van Swieten, in his commentaries on Boerhaave's aphoriſms, relates a caſe of a lad twelve years of age, in whoſe gall bladder eight pounds of thick bile were found.

The ſecond ſubject of conſideration is a diminiſhed ſecretion of bile.

The ſymptoms of want of bile may be thus deſcribed; loſs of appetite, coſtiveneſs, hard and clay coloured ſtools, at times of a putrid fætor, a peculiarly ſickly paleneſs of the face, loſs of fleſh, indigeſtion, attended with flatulencies, a langour of the body and mind, and ſpaſmodic aſthma.

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It is alſo productive of a peculiarly morbid complexion, neither yellow, conſumptive, nor pallid, but of ſuch a peculiar ill aſpect, (a kind of leaden color,) as I ſuppoſe is not deſcribable by words, but which an attentive obſerver might ever remember, having once thoroughly noticed.

I am ſtrongly of opinion that many (perhaps it will be found that the greater number of) aſthma's are cauſed by diſeaſe of the liver. In India, bilious diſeaſe is accounted as the cauſe of many coughs: and the late Mr. Paſeley, an ingenious and ſenſible practitioner in India, remarked, that in all confirmed diſeaſes of the lungs, the liver was affected.—He even ſuppoſed every chronic diſtemper to originate from diſeaſe of the liver.—Another remark of the ſame gentleman was, that in all liver diſeaſes the urine was high coloured.

Such are the ſymptoms too often ſeen in this iſland as the conſequences of drink-

ing, particularly ſpirits, and in ſuch caſes uſually the harbingers of fatal dropſy, or conſumption.

Some of theſe ſymptoms are attendant upon the ſchirrus liver, and may perhaps be ſufficient to mark that diſtemper.—It is the common practice to examine by the hands externally on the abdomen, when an induration of the liver is ſuſpected; on the idea that it is always then enlarged. The following caſes however evince that ſuch examination is not to be relied on; for it is by theſe proved that ſuch diſeaſe may occur with a decreaſe of its ſize, in which ſituation it would not be perceptible by an examination during life with the hands.

This obſervation I made in 1774, on having twice found the liver diſeaſed and tending to ſchirrus, and at the ſame time ſhrunk within the margin of the ribs, ſo as not to have been perceptible by manual examination during life.

J. G.

J. G. aged fifty, after great fatigue from travelling, was seized with pain in the chest, cough and spitting, attended with shortness of breathing, particularly after eating. A spitting of blood then ensued, which however ceased a month before death, during which time he was free from pain in the chest, but could not lay on his right side.

A sudden profuse bleeding from the lungs, suffocated this patient. On dissection some slight disease of the lungs was discovered. The liver was indurated, diminished in size, of a paler color than natural, throughout its whole substance: and the gall bladder was very much thickened.

B. J. aged forty, had been for many years subject to pains in the right hypochondrium, which returned periodically, and were often accompanied with vomitings and asthma. Among other less morbid appearances, such as serum between the membranes of the brain and its

ventricles: the liver was found hardened, but not enlarged.

Another kind of indurated and diminiſhed liver which I have alſo met with, is that in which it's ſurface is raiſed in half rounded eminences, appearing like granulations, covered with the proper membrane of the liver.

In one of theſe caſes, the particulars of which I have inadvertently loſt, the patient died dropſical.

A gentleman aged fifty-nine, was attacked in May, 1787, with laſſitude, loſs of appetite, and pains in the loins extending towards ſometimes the one, ſometimes the other ſhoulder, the urine alſo was very thick and red, with a yellow tinge, and depoſited a thick red ſediment; it at times was charged with a ropey mucus, ſomewhat reſembling matter. The pulſe was ſmall, and for the moſt part ſlow. Theſe ſymptoms were regarded as what is vulgarly called a breaking up of the

the conſtitution: and palliatives only were preſcribed.

Having diſcovered a dingey yellowneſs of the ſkin and eyes, I adviſed that the caſe ſhould be treated as bilious: and preſcribed pills of aloes with gum ammoniac. ſoap and rhubarb.—After a lingering diſeaſe of five months, the unhappy patient's ſufferings terminated in death. During this period he was often attacked with aſthma. It was ſpaſmodic: attacking him at various intervals, and admitted of no relief but from opiates.

During the progreſs of this diſeaſe, various medicinal plans were purſued, ſuch as ſedatives, balſamics, mercurials in ſmall doſes, cicuta, ſolvents of calculus, and laxatives: with change of air.

Another remarkable ſymptom in this caſe was the elevation of the ſhoulders, obſerved as a ſymptom of diſeaſed liver by Bontius, whoſe tranſlator, ſtiles it, prominence of the ſhoulders. Alſo by Dr.

Dr. Girdleſtone, and others of the moderns.

On examination after death when the abdomen was opened, the omentum, ſtomach and bowels, alſo the kidneys and ureters were free from diſeaſe, as were the other parts, excepting the liver, which was reduced to about one half it's natural ſize, and remarkably indurated; and at the outer part to the depth of three-eighths of an inch poſitively as hard as griſtle, and the remainder completely ſchirrus.*

It

* Boerhaave in the body of an officer, who had gone through all the degrees of the yellow, green, and black jaundice, found the liver ſcarce equal to a hand's breadth, and about the ſame thickneſs, but as tough as leather. Boerhaave's Academical Lectures.

Riolan relates that he found in a body which he opened at Paris, the liver ſo ſmall as ſcarcely to equal the ſize of a kidney.

Van Swieten writes that he has ſometimes found the whole liver ſchirrus, and contracted, or greatly diminiſhed in bulk, juiceleſs, and tough like leather.

Dr. C. H. Velſe, in his inaugural theſis at Leyden, 1742, relates a caſe in which the liver was hard, rigid,

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It appeared then that it would have been impoſſible to have diſcovered by manual examination the nature of the diſeaſe of the liver in theſe caſes, ſince it was contracted above the margin of the ribs, conſequently covered by bone, and beyond the reach of the hand in an examination. The enlarged liver is, however, a much more common diſeaſe:* In the following caſe the ſymptoms were of the ſame kind

of diminiſhed bulk, and beſet with ſolid rough tubercles, over its whole convex ſurface.

Du Verney found the liver ſo dried in half its ſubſtance as not to exceed the thickneſs of his thumb.

The late Dr. Hunter in his lectures, related a caſe in which the liver was ſchrirrus and much ſhrunk or diminiſhed.

In Matthews's obſervations on hepatic diſeaſes, page 202, are theſe words; the liver was found remarkably ſmall and hard in a patient who died of hepatic dyſentery.

The celebrated Ruyſh found the liver in two inſtances of dropſical ſubjects, indurated and not enlarged.

* It has been found encreaſed in bulk, ſo as to weigh fourteen pounds four ounces, and extending over great part of the abdomen: and often to extend much below the margin of the ribs. An enlarged and indurated liver is one of the moſt common chronic diſeaſes of thoſe of the abdomen.

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with the former, although the liver was enlarged.

A. W. aged forty years, had been long afflicted with a large hard tumor on the right ſide of the abdomen, painful to the touch; attended with thirſt, ſlow fever, difficulty of breathing and vomiting.

On examination after death, the tumor was diſcovered to be the liver grown to a great bulk, it's right lobe extending almoſt to the lower part of the belly.

This lobe in particular was univerſally indurated, as was the remainder of the liver, though not ſo much ſo in it's inner part. The coats of the gall bladder were thickened, it's cavity ſmall, and containing ſome black, thick, viſcid bile.

The lungs had no other diſeaſed appearance, excepting ſome dark colored ſpots.—I forbear inſerting more caſes of this kind, becauſe ſuch may be found in various authors, attended with many of the

the moſt diſtreſſing ſymptoms above recited.

It appears to me that the ſymptoms already deſcribed, likewiſe violent pain in the kidneys extending up to the ſhoulder, urine of a deep yellowiſh red color, and depoſiting a ſediment ſeeming to be red particles of blood, loſs of appetite, indigeſtion, and flatulencies in the ſtomach and bowels, were chiefly cauſed by the want of bile; but that theſe ſymptoms were to have been in part attributed to the diſeaſed ſtate of the liver, is alſo allowed.

The caſes above recited, it is true ended fatally; but had their cauſe been known, another and powerful remedy ſhould have been uſed, viz. a regular courſe of mercurial friƈtions—Moſt of the above ſymptoms in a leſs degree, are not uncommon, eſpecially in thoſe who have ſuffered liver diſeaſe in hot countries: ſometimes happening from inflammation

ſlammation of that gland, having left it in an indurated ſtate.*

In addition to the above, as a palliative, I would recommend animal bile inſpiſſated, (that of the ox has been given,) in the form of pills, in order to ſupply the want of the human bile. I have within the laſt year preſcribed it in two caſes with ſucceſs. In one of theſe caſes, until this medicine was taken, during many preceding weeks, the patient voided no ſtools without clyſters, and reaped the advantage of natural dejections by pills formed of the bile of ox inſpiſſated.

Boerhaave, as I am credibly informed, cured an obſtinate jaundice in the child

* Dr. Girdleſtone on hepatitis, aſſerts that "catching of the breath, in inſpirations is a ſymptom of the inflammatory ſtate of the liver: and that a deep hollow ſounding cough is a ſymptom of an abceſs in that gland."

The term obſtruction is ſtill familiar in phyſic, for example an induration of the liver is ſtiled an obſtruction, an induration and enlargement of the meſenteric glands is called an obſtruction of them; it is uſed in conformity to the Boerhaavian theory of inflammation: but is repugnant to the known laws of the animal œconomy.

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of an Engliſh merchant, with bile of the pike fiſh inſpiſſated.

This has been found a ſucceſsful medicine for epilepſy,* accompanied with a bloated and pale countenance, indicative of ſome viſceral diſeaſe, probably of the liver.

The method of cure then ſhould be, firſt to attempt the reſolution of the induration of this gland, by the ordinary deobſtruent and attenuant medicines; of which the aloetic kind, aſſiſted with rhubarb, ſope, and alkaline ſalts, may be firſt tried: which in an incipient ſtate of congeſtion of the liver, will in ſome caſes prove effectual.

Strong or cold purgatives are dangerous: the former by their irritating quality might induce inflammation: and the latter I have known bring on a jaundice, once in

* Vide Dr. Duncan's medical commentaries for 1788, page 162: ox bile recommended for epilepſy, by the late Dr. Quarin.

myſelf;

myſelf; alſo in another caſe when preſcribed by a phyſician of eminence.*

The next plan which I think merits a trial; but to which much time ſhould not be given up, is the cicuta, the extract, (ſuccus ſpiſſatus,) which ſhould be given twice a day, encreaſing the doſe gradually until it produces ſome pain or dizzineſs in the head: tartar emetic in ſmall doſes may be joined with this medicine, in order to render it more active. Much depends on the goodneſs of this medicine, and I hold it as an excellent rule, "that when hemlock, either in the form of powder or extract, has no ſenſible effects when taken to twenty grains for a doſe, the medicine may be ſuppoſed to be imperfect; and that, if it is continued, another parcel of it ſhould be employed." Cullen's Materia Medica, vol. 2. p. 264.

* Each of theſe caſes happened in hot weather.—A due regard to the correcting the ill quality of the bile, previous to it's haſty evacuation, is therefore worthy of attention, eſpecially at ſuch ſeaſons.

But

But the moſt effectual remedy in ſuch caſes, is a courſe of mercurial inunctions,* ſo conducted as to excite a moderate ſalivation, or at leaſt ſome degree of ſoreneſs of the mouth.—The frictions were at their firſt introduction among the Britiſh, made on the region of the liver: but it having been found that the act of rubbing-in the ointment over this diſeaſed gland was of prejudice, the common mode of rubbing it into the lower extremities was ſubſtituted: and it's ſucceſs has juſtified the practice. Mercurial purgatives are alſo to be interpoſed occaſionally: for theſe, aſſiſted with camphor, opium, or ſuch other medicines as the ſymptoms ſhall require, may effect a cure in an early ſtate of the diſeaſe.

* The late celebrated Dr. Cullen in his lectures, with his well known candor, and the liberality of a great mind ſaid, we have lately learnt from the gentlemen practitioners in the Eaſt Indies, that the liberal uſe of mercurials is the only effectual means of diſcuſſing congeſtions in the liver. —It is alſo aſſerted that to the full proportion of nineteen in twenty of ſuch caſes are thus curable. Vide Matthews citat.

Henry Walker, aged thirty-three, a thin, healthy man, employed at the leather mills near Hertford, was attacked July 2, 1789, with a cold fit terminating in fever, but not accompanied with ſuch privation of ſtrength as occurs in the ſimple continued fever. At the end of ten days the fever continued, and his eyes, forehead and temples were yellowiſh;—on manual examination ſome degree of tenderneſs to the touch and induration were perceived on the liver. A courſe of mercurial inunctions was immediately began (the pulſe then exceeded 100) aſſiſted with calomel internally; the ſymptoms gradually ſubſided under this courſe, and the man was effectually cured in three weeks and a few days.

The practice of giving calomel in large doſes in dropſies ariſing from diſeaſed liver, was written of by Riverius above a century ago, as not uncommon then: he gives many caſes which he cured with that practice. A few words may be neceſſary on the ſubject of mercurials, in order

order to obviate the prejudices conceived againſt them.

During full twenty years practice, and ſo long conſtant attention to the action of mercurials, I never have ſeen any ſuch effects, as to induce me to believe it broke down the texture of the blood, or otherwiſe injured the conſtitution, when judiciouſly adminiſtered. In myſelf, when much debilitated by jaundice, in 1786, owing to congeſtion of the liver, and inert, probably viſcid ſtate of the bile, I took from three to five grains of calomel five nights in a week, for three weeks, which did not impair my ſtrength.—Nor have I any reaſon to ſuppoſe that mercurials injure the ſolids. It is known from conſtant obſervation to ſtimulate various ſecretory organs; as the ſalivary glands, exciting ſalivation; ſkin producing perſpiration; inteſtines, diarrhæa; kidneys, urine; "and I am of opinion that we may add that it ſtimulates the liver, and encreaſes the ſecretion of bile."*

* Vide Cullen's Citat. article Hydrargyrus.

Solvens mineralis, a ſublimation of arſenic, prepared at apothecaries hall, and highly extolled by a phyſician of eminence for it's good effects in ſchirri, might alſo be tried. It is to be given in doſes of the tenth of a grain, twice a day, encreaſing the doſe gradually.

The uſe of the bath waters at Bath, is alſo a remedy highly deſerving attention; where the circumſtances of the caſe will admit of their uſe.

The medicinal treatment having been briefly ſpoken of, it may be proper now to treat on the diet beſt adapted for theſe caſes.

The food ſhould be nutrient and eaſy of digeſtion; of this kind, of fleſh, are the (feræ natura, game) poultry, and ſuch kind of fiſh as have the ſame qualities: of common food the choice will depend on the patient's experience of that which digeſts beſt, and ſets eaſieſt on the ſtomach. Salted meats, fat, butter, and lard, particularly

ticularly as introduced in paſtry, and all condiments, ſhould be avoided. However, ſuch patients having ſeldom inclination or ability to eat much, even enough to preſerve a due degree of ſtrength in the conſtitution for it to combat the diſeaſe; the principal rule to be obſerved in their diet, is not to overcharge the ſtomach with a large quantity of food at any one time. The food ſhould be attenuant: the drink may be whey, water, tea, barley water, occaſionally taking ſome ſuch cordial as wine, (with egg or ſpice when requiſite) cyder may be adviſed, as may a light infuſion of ginger, orange or lemon peel, camomile or gentian.

In many inſtances, bilious diſeaſes having been brought on by groſs feeding, and want of exerciſe, the article of diet in ſuch, becomes a matter of the moſt ſerious conſequence.—It is a very juſt obſervation that diet is capable of producing greater alteration in the human body than medicine, and with leſs injury to the conſtitution.

The late Dr. Huxham in the preface to his eſſay on fevers, ſays, on the ſubject of diet, " what we uſe by ounces and pounds cannot but conſiderably affect us." And adds, that " Hippocrates and the ancients were very careful in preſcribing a very exact regimen." In ſhort, if error in diet is the cauſe, remove the cauſe and the effect ceaſes. I wiſh not to be miſunderſtood, as meaning that an indurated liver can be cured by any change of diet, but that by a proper diet its ſymptoms may be alleviated. For the ſame author adds from Hippocrates (as his apology for not giving many formulæ of medicines,) " he that knows a diſeaſe, knows what is proper to cure it."

During either of the above courſes, painful ſymptoms may be ſafely palliated even by opiates, provided the bowels are kept open.

Bitters it has been ſaid ſhould be given, (tho' their ſafety when long continued is not thoroughly eſtabliſhed:) as a ſtimulus

to

to the ſtomach they may tend to excite appetite, but from their tendency to excite contraction of the veſſels, their action upon the biliary paſſages might tend to encreaſe the obſtruction to the bile's free paſſage. But provided the diſeaſe ſhould happily yield to medicine, towards the concluſion, the cautious uſe of bitters* with chalybeates may be with propriety for a time preſcribed, in order to ſtrengthen the weakened veſſels of the liver, and digeſtive organs, and thereby prevent a relapſe. Of chalybeates thoſe mineral waters which are laxative, ſuch are thoſe of Tunbridge and Iſlington, are to be preferred to the medicinal preparations of ſteel. And the columbo root as a tonic and ſtomachic ſhould be adminiſtered. It is aſſerted by practitioners of phyſic in India, that it will effect this purpoſe fully and with ſafety: whereas the bark is by them reckoned productive of future obſtructions.

* There is ſome reaſon to ſuppoſe they are injurious to the eyes; and their long continued uſe certainly tends to weaken the ſtomach.

I cannot conclude this article without ſubjoining, that ſpirits ſhould be religiouſly refrained from. The familiar experiment of ſoaking a piece of fleſh in ſpirits, demonſtrates their power of hardening animal fleſh, and this effect in ſome degree muſt be allowed to take place upon the ſtomach and liver, in the living body.

The third ſubject for diſcuſſion is miſplaced bile.

The morbus regius, aurigo, icterus, morbus arquatus, or jaundice, is the moſt obvious example of miſplaced bile.

It conſiſts of a mixture of the bile in the circulating maſs of blood, diſtinguiſhed by a yellow colour of the ſkin and eyes, attended with high coloured urine, ſtaining linen yellow: coſtiveneſs and white hard ſtools, ſometimes fœtid. It is uſually productive of langour of body and mind, coldneſs or chillineſs*, loſs

* The pulſe has been found remarkably ſlow in ſome inſtances of jaundice. The late Dr. Hunter found it in one

loſs of appetite, uneaſineſs in the right hypochondrium particularly on preſſure, heat about the noſtrils, and itching of the ſkin. In the advanced ſtate every thing taſted ſeems bitter. The ſaliva and blood are tinged; and the whole contents of the abdomen and thorax, likewiſe the brain and the bones, have been found yellow on diſſection. The eyes alſo as the poet remarks, "lurida præterea cernunt, quæcunque ſpectantur arquati," are ſometimes ſo affected, that all objects appear yellow. This however was not ſo in either of my three attacks of jaundice, nor have I ever met with an inſtance of it.†

one caſe only thirty-ſeven in a minute. I have now a dropſical caſe under my care, in which the pulſe has been at thirty-three in a minute, full and regular, the man quite ſenſible, and is nearly cured.

From theſe circumſtances may we not allow, that one uſe of the bile is, to aſſiſt in generating heat in the body?

† This opinion was maintained by Galen and others of the ancients. And two caſes in which it occurred are mentioned by Hoffman, one by Sardona in his Aphoriſms de cognoſcend. et cur. morb. and two by Dr. Percival, in the ſecond vol. of his Memoirs of the Med. Society of London.

This

This diſeaſe originates from various cauſes, the moſt obvious of which are mechanical obſtructions of the biliary ducts. Theſe may ariſe from biliary calculi; from obſtructions in the biliary follicles of the liver; from induration or ſchirrus of ſome adjacent part preſſing on the ducts: and another, and I ſuſpect more common cauſe, to be a contraction of the gall ducts themſelves: viſcidity of the bile may alſo be admitted as another cauſe.

That the gall bladder and its ducts are liable to generate concretions called calculi, has been known from before the time of Galen. The calculus felleus is a more frequent diſeaſe than is imagined. Theſe ſtones are of all varieties of figures and divers colours; they are however uſually of a triangular ſhape when many in number; and of a darkiſh brown colour. This figure of the human gall ſtones has not ever been rationally accounted for. They vary alſo much in degree of conſiſtency; ſome being ſoft and friable, which

are

are generally of a light colour.—Some will ſwim in water; and others ſink. In ſize they have been found to weigh even ſome ounces, and in number actually many hundreds. Some of theſe gall ſtones, when held to a flame take fire and will burn like reſin: whereas others will not burn, but melt like wax.—The ſolid dark coloured ones do not diſſolve by gentle coction, either in ſpirits or water: of ſome, above one half will diſſolve in warm water.

A peculiar and not uncommon appearance of gall ſtones, is a great number of very minute black ragged granules.

Mr. Cline mentioned to me, that in one caſe he met with the gall bladder diſtended with a tranſparent ropey fluid, not in the leaſt colored with bile, and in which the cyſtic duct was imperforate. In this gall bladder ſeveral ſmall irregular black calculi were contained. This fluid was probably ſecreted by the internal coat of the gall bladder, which from its great vaſcularity ſeems capable of performing that

that function: and it is probable that theſe calculi were formed by that ſecretion, conſequently not biliary calculi.—Alſo in another caſe the cyſtic duct was entirely obſtructed by a calculus, and the gall bladder was diſtended by the ſame kind of fluid as the former, and contained the ſame irregular ſubſtances.—In both theſe caſes, bile was contained in the pori biliarii and the biliary ducts, in the uſual quantity.—From which circumſtances it appears probable that theſe kind of concretions, are formed by the fluid ſecreted in the gall bladder.

Biliary calculi are no leſs various in ſize and number, than common as a diſeaſe, or appearance after death. Many extraordinary inſtances of which may be ſeen* in papers publiſhed by the medical ſocieties of moſt countries.

The

* In the works of Galen, Du Verney, Vaterius, Fernelius, Veſlingius, Gentili, Nicolus, Fallopius, Haller, Morgagni, Hoffman, &c.—Veſalius found in the body of Proſper Martelli, the gall bladder twice the ſize of a fiſt, and filled with calculus granules like the ſeeds of millet.

Dr.

The ſymptoms cauſed by them vary, from the moſt violent lancinating and ſpaſmodic pains in the region of the gall bladder, even to the leaſt imaginable inconvenience.—And on the contrary, there is no doubt from the frequent inſtances of ſuch concretions having been diſcovered after death, where no bilious affection had preceded, that ſuch may, and do frequently happen without perceptible inconvenience.

Lithotomy has been adviſed for the removal of theſe ſtones. This however has aroſe from the uncandid repreſentation of a very uncommon caſe, but which has I know occurred: to wit, of an abſceſs forming between the calculus, and the integuments of the abdomen. In this

Dr. Hunter in his lectures uſed to recite the caſe of a young woman, in whoſe gall bladder were found 1100 gall ſtones, and yet no pain or diſeaſe of the digeſtive organs had preceded.

The celebrated Dr. Mead found a gall ſtone weighing two drams, in the gall bladder of the late Lord Bath, notwithſtanding which, neither pain in the part, nor jaundice had preceded.

caſe

caſe when the matter is let out, the ſtone may be felt by a probe or the finger introduced into the wound, and poſſibly extracted. But the kind and wiſe proceſs of nature in ſuch caſes is, firſt to form a complete adheſion between the gall bladder or ducts and peritonæum, ſo that when ſuch abſceſs is opened, the cavity of the belly remains unexpoſed, that is, not cut into. One caſe of this kind I have ſeen, in which the abſceſs had been opened, and a fiſtulous aperture remained leading to a gall ſtone. In Morgagni de cauſis and ſedibus morborum are three of ſuch caſes. The firſt was cured: the ſecond had a fiſtula left, by which a thin yellow liquid was diſcharged; the third had an ulcer remain, which with it's ſanies, diſcharged bilious calculi at times.

The remedies for this diſorder are laxatives joined with diuretics, neutral ſalts, emetics, and opiates: ſolvents have alſo been recommended.

It appears neceſſary to caution againſt the indiſcriminate uſe of ſtimulant purgatives or emetics, from the danger of their encreaſing the pain and irritation. For it is to be conſidered that any ſtimulating medicine, would by encreaſing the irritation of the biliary ducts, tend to exaggerate the ſymptoms.

Biliary calculi of ſuch remarkably large dimenſions have been diſcharged by ſtool,* that practitioners were puzzled in endeavouring to account for the courſe through which they came.—It has been ſuppoſed, from the impoſſibility of their paſſing through the ducts, that they were generated in the ſtomach or bowels.—But Mr. Cline having found the gall bladder adhering to the duodenum, and a direct aperture from it into that inteſtine:—(which parts are among his anatomical preparations:)—It appears that in this

* An extraordinary caſe of this kind is related by Dr. Lettſom, in the firſt volume of the Memoirs of the Medical Society of London.

courſe

courſe a ſtone of any dimenſions, confined in the gall bladder, might take it's paſſage directly into the gut, and be diſcharged by ſtool.

Opiates properly timed, will be found to be the ſovereign remedy in alleviating the pains and ſpaſms occaſioned actually by ſuch calculi, or by the obſtructed bile itſelf. But they ſhould be joined with laxatives; and ſo much of an emetic medicine, as to excite ſome degree of nauſea without vomiting may alſo be adminiſtered with them. The warm bath, or fomentations to the hypochondriac region may afford relief.

Solvents for theſe calculi have likewiſe been propoſed, and are highly extolled by ſome authors. The juice of common graſs has been called a ſpecific; founded on the remark that oxen fed on dry fodder are ſubject to ſuch calculi; from the ſymptoms of which feeding on graſs cures them.—But when we reflect on the courſe that ſuch medicine muſt take in the circulation

culation before it arrives at the liver, in order to mix with the bile, and to act as a ſolvent on theſe calculi; the difficulty of introducing a ſufficient quantity of any ſuch medicine will be evident.* Much however may be expected from diet of an attenuant kind, conſiſting much of vegetables, and the free uſe of warm diluent drinks are alſo to be recommended, in order to attenuate the bile; unleſs there was any evident tendency to dropſy.—In jaundice long continued, and ariſing from a viſcid ſtate of the bile, an attenuating diet conſiſting principally of vegetables, may be conſidered as the chief means by which a cure is to be expected, for this obvious reaſon; that the bile being ſecreted from the blood returned by the veins from the abdomen, it's nature will depend very much upon, and may be very eaſily altered by diet. For beverage, hock and water, or in it's ſtead cyder and water is highly proper, as is water by itſelf, or a

* A decoction of Pareira Brava is recommended by Hoffman.

light infuſion of ſome grateful aromatic or mild bitter; whey is alſo proper. Sour fruits might alſo be of ſervice; acids and ſome of their compounds having the power of decompoſing the bile. *

On the ſubject of exerciſe, the ſame obſervations will apply that were made on the uſe of cathartics and emetics. It is capable of doing harm; as may negatively appear from this circumſtance, that bending the body forwards for any length of time, as in writing or reading upon a deſk, is particularly injurious in moſt bilious affections. Gentle exerciſe on horſeback, ſailing, or ſwinging, may be recommended; benefit may alſo accrue from what is vulgarly called, ſtanding on the head. The criterion by which I ſhould judge of the ſafety of exerciſe would be of its encreaſing the pain or not. Wherefore, moderate exerciſe ſhould be firſt attempted.

* Fordyce Elem. pract. phyſic.

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The next kind of jaundice, is that ariſing from the preſſure of ſome indurated part on the biliary ducts. Caſes of this kind are to be found in ſome of the authors already quoted. The ſymptoms of this I ſhould ſuppoſe are alſo to be collected negatively, to wit, from the abſence of the ſymptoms ordinarily attendant upon jaundice; from it's not being attended with pain in the epigaſtric, hypochondriac, or umbilical region, (which latter Hoffman aſſerts to be the moſt clear indication of gall ſtones;) from it's not yielding to the remedies recommended for common jaundice, continuing long without intermiſſion, or from it's having been preceded by ſymptoms of obſtructed viſcera.—In one caſe of this kind an incurable jaundice was cauſed by the preſſure of a ſchirrous pancreas upon the ducts of the gall bladder.—An inflammation happening in the concave part of the liver, is alſo in ſome inſtances productive of jaundice.

The remedies moſt likely to afford

relief would probably be a mercurial courſe, cicuta, or the ſolvens mineralis.

The next cauſe of jaundice enumerated, is contraction of the biliary ducts themſelves.—One inſtance of this diſeaſe I met with in the examination of the body of a gentleman who died of a fever, but had been previouſly often afflicted with jaundice.—In this caſe, the ductus communis cholidochus was near it's opening into the bowel ſo contracted, that a large pin would ſcarcely paſs, and ſuch a tenacious fluid as bile with much difficulty. Another proof of this may be drawn from the effect of the mind, in ſome who are ſubject to jaundice, in whom anxiety and other paſſions, will bring on this diſorder in a few hours.—Some poiſons are alſo productive of this, which may be called the ſpaſmodic jaundice, as the bites of venomous animals. The bite of the viper produces this kind of jaundice in leſs than an hour; which can only be accounted for on the theory of every part of the body ſecreting bile, in ſome caſes

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of jaundice *. The principal remedies for this jaundice will be antiſpaſmodics, and even opiates if thoſe ſhould not be ſucceſsful †.

A viſcid ſtate of the bile conſtitutes another cauſe of jaundice. This when habitual and not amounting to diſeaſe, ſeems to have been deſcribed by the ancients under the title of the melancholic temperament. The ſymptoms are a laſſitude of body and diſpiritedneſs, with jaundice of a dark or dingy yellow ‡. This kind of jaundice I ſhould alſo ſuſpect to be not unfrequently the cauſe of

* Fordyce Elem. pract. phyſic.

† Theſe ducts have alſo been found much dilated, even ſo as to admit a moderate ſized finger at the inſertion of the ductus communis, into the duodenum.

‡ In the recent jaundice the colour is of a bright light yellow: as happened once to myſelf, being compleatly jaundiced in one night. This was preceded by a conſtant pain for ſeveral days at the region of the gall bladder, which was relieved from the inſtant the jaundice took place: owing probably to the abſorbents having removed the quantity of bile, which by diſtending the gall bladder cauſed the pain.

aſthmatic affections. When the ſpecies of jaundice can be clearly aſcertained, it would be right to make a rather free uſe of cathartics*, aſſiſted by ſuch other medicines as the ſymptoms may require; eſpecially antiſpaſmodics with opiates; an attenuating diet and the free uſe of diluting liquids, in order to thin the blood and juices ſecreted from the ſame, with moderate exerciſe, and eaſe of mind.—Haller ſays the bile becomes viſcid, "quieto, obeſo, & a mærore."

Another cauſe of jaundice, reckoned by ſome as the moſt common, is an obſtruction of the ſmall glands or biliary follicles in the liver. This however I imagine to be very ſeldom the real cauſe of jaundice, which may be more rationally deduced from a viſcidity of the bile itſelf, flowing too ſlowly through it's natural ducts, and in conſequence of this remora, admitting of ſome abſorption of

* Aloes are peculiarly adapted to this diſorder, being indued with the property of rarefying the blood. Cullen's Lectures on the Materia Medica.

bile

bile into the blood, and thus inducing jaundice.

The laſt general head under which I have claſſed bilious diſeaſes, is when they are excited by the diſeaſed ſtate of the bile. Such caſes I think are not frequent in England, or any of the northern climates.—An acrid ſtate of the bile is capable of ſtimulating the bowels and ſtomach, thereby producing ſudden and violent evacuations by vomit and ſtool, then called cholera morbus. Bilious diarrhæa's do alſo ſometimes occur from this cauſe.

Theſe ſymptoms have been treated on in ſome of the preceding pages, as ariſing from an exceſſive quantity of bile. It is alſo more than probable, that theſe two cauſes are united in ſome, perhaps moſt of ſuch caſes.—Fevers from acrimony of bile are alſo ſometimes met with here, particularly in hot and dry ſeaſons.

In hot countries, bile is ſometimes accumulated in the inteſtines, and becomes ſo highly putrid, as to cauſe not only fevers of a moſt dangerous kind, but various other diſeaſes. But it appears to me, that ſuch diſorders are much more frequently cauſed by the contents of the ſtomach and bowels becoming putrid. For (eſpecially in hot climates) I imagine it may be admitted as a fact in phyſic, that "animal food will always become putrid, unleſs it be digeſted, or elſe evacuated ſooner than is natural," which is to be accounted for, from the ſtomach in health aſſimilating the aliment to a pulpy maſs, without its going into a ſtate of putrefaction, and having the power of ſtopping the proceſs of an incipient putrefaction *. —Whereas human bile does not putrify more readily than the other ſecretions, or the blood. †

It has been found in India, that the ſudden diſturbance and evacuation of ſuch

* See Spallanzani's experiments on digeſtion.
† Fordyce, Elem. phyſic.

bile,

bile, and contents of the primæ viæ, is a matter of great hazard, requiring nice diſcrimination, as many have died under the evacuations, as ſuppoſed from its extreme acrimony. The practitioner's object ſhould therefore be to dilute and correct the ill ſtate of ſuch offending bile and putrid contents of the ſtomach and bowels, by proper diluents and medicines, previous to its evacuation.

Another general remark.—Chronic bilious diſeaſes, and thoſe of the liver, are preceded by coſtiveneſs: are often cauſed by anxiety of mind, and too frequently by drinking of ſpirits.—Some of the leading ſymptoms cauſed by drinking, are pain in the ſtomach, loſs of appetite, ſymptoms of aſthma, jaundice, and coſtiveneſs, the precurſors of fatal conſumption or dropſy *.

* Vide, Memoirs of the Medical Society of London, vol. 1. page 152. the ſymptoms ariſing from drinking, accurately deſcribed by Dr. Lettſom, page 153, are theſe words, "the liver ſeems leſs than natural."

It ſeems but rational to ſuppoſe that many of theſe diſeaſes may be prevented by avoiding theſe cauſes; and by a due attention to the ſtate of the bowels, which ſhould be kept open daily.—By this I mean, that the mind ſhould be relieved by company, change of ſcene, and ſo on: but that the bottle ſhould be refrained from, as more particularly liable to bring on diſeaſe of the liver at this period; ſince it has been proved, that anxiety of mind alone is capable of inducing bilious diſeaſes.—I know a gentleman, who, with a conſtitutional bad digeſtion, has drank part of a glaſs of brandy, and a bottle, often two, of wine daily after dinner, with few intermiſſions, for forty years, without any apparent ill effect: but he has conſtantly kept his body open, and this he has done chiefly by the means of hiera picra.—This latter obſervation merits the particular attention of all thoſe who drink freely, for I am perſuaded that many liver diſeaſes, which end fatally, might be thus prevented. In general, ſome warm laxative will be requiſite;

ſite; that which will agree beſt may be diſcovered by each individual, on trying various kinds: ſuch as rhubarb, vinum aloes, or any ſuch.—I ſhould be ſorry to be miſunderſtood, as being the advocate of the free uſe of the bottle, being certain that it ſhortens life; meaning what I have here advanced to apply to thoſe who will not lay aſide this baneful practice; for ſuch are ſtill entitled to our aid.—Further, it is not the quantity alone which deſtroys the conſtitution, but the time when drank: for ſtrong liquor taken into the ſtomach when void of food, will exert its heating and corrugating powers over that organ and the liver with infinitely more effect than when it contains ſolid food, with which it will become well blended, and of conſequence not ſo deleterious to theſe parts.—It is alſo highly worthy of remark, that a certain given quantity of ſtrong liquor drank at one or two ſtated times of a day, (the only proper times are after dinner, and after ſupper,) injure much leſs than if indiſcriminately taken; whereas drinking

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in the morning kills many hundreds yearly in England.

Laſtly, Pain at the pit of the ſtomach, being one very common attendant upon biliary diſeaſes, I judged that the following obſervation was founded on a fact of too much conſequence to be omitted: viz. that the family remedy for this, is ſome ſpirituous cordial.—Language too poignant cannot be held out againſt this cuſtom, ſince to this, the fatal termination of many of theſe caſes in incurable liver diſeaſe, dropſy, &c. may be attributed, poſitively in ſome inſtances, I think myſelf well founded in aſſerting, more than to the original diſtemper.—Brandy and water is alſo a common but a moſt treacherous, beguiling, poiſonous, remedy, obnoxious to the ſame objections, and to the further one of the propenſity which people have to encreaſe its ſtrength, in proportion to the progreſſive weakneſs of the ſtomach.—From my own experience I found it was the warm water which afforded the relief: a diſh

of

of warm coffee or tea * was my remedy for two years, during which time I was conſtantly at noon afflicted with an urgent pain at the ſtomach.—But let us ſuppoſe that I had daily at noon, on an empty ſtomach during two years, that is more than ſeven hundred times, taken ſome cordial or ſtrong drink: is it not more than probable that an incurable liver diſeaſe would have been the conſequence? I am certain it would.

In the foregoing pages much ſtreſs has been placed upon diet: I ſhall, therefore, beg leave to conclude in the words of the late ingenious Cullen.

"It were well, therefore, that mankind were aware of the tendency which every kind of diet has to produce effects, either immediately, or after repetition, unfavorable to health. And I cannot be of more ſervice than by engaging phyſicians in a minute ſtudy of the ſubject."

* To thoſe who have any diſlike to theſe liquids, I would recommend a light infuſion of ginger, orange peel, or any ſuch warm mild bitter, or lemonade.

FINIS.

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